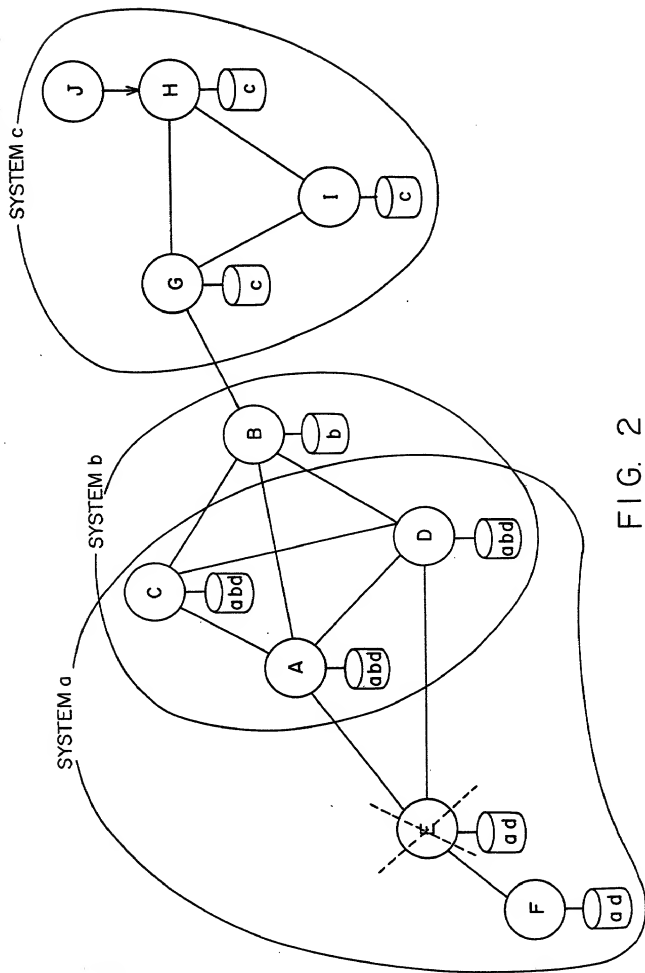


F I G . 1



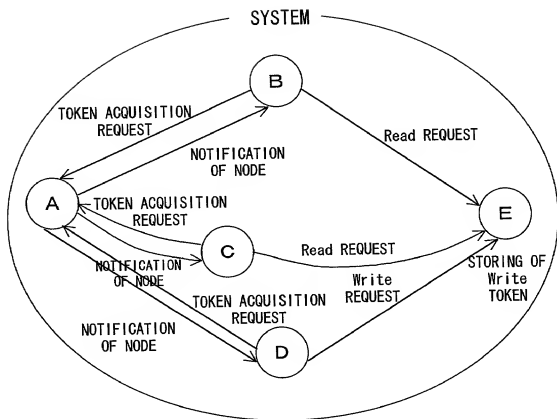


FIG. 3 A

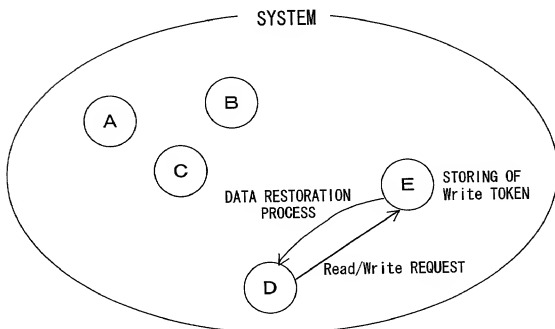


FIG. 3 B

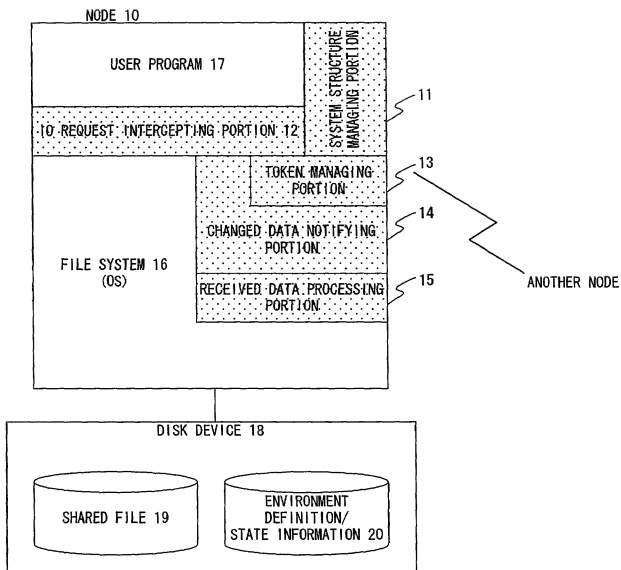


FIG. 4

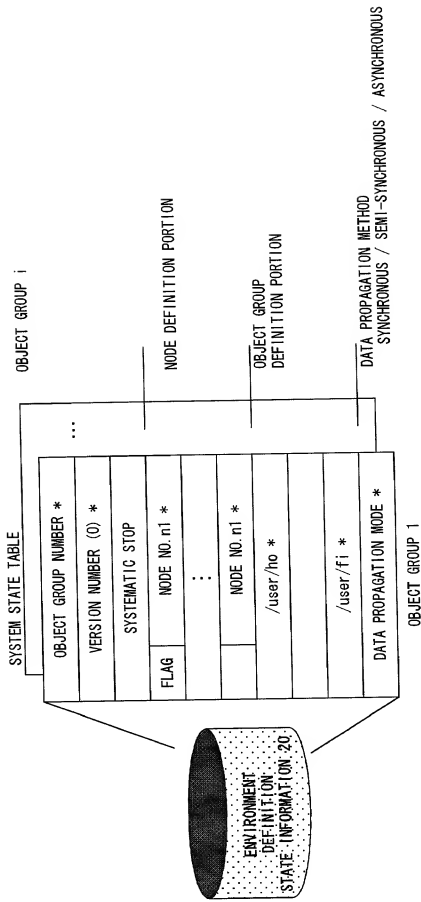


FIG. 5

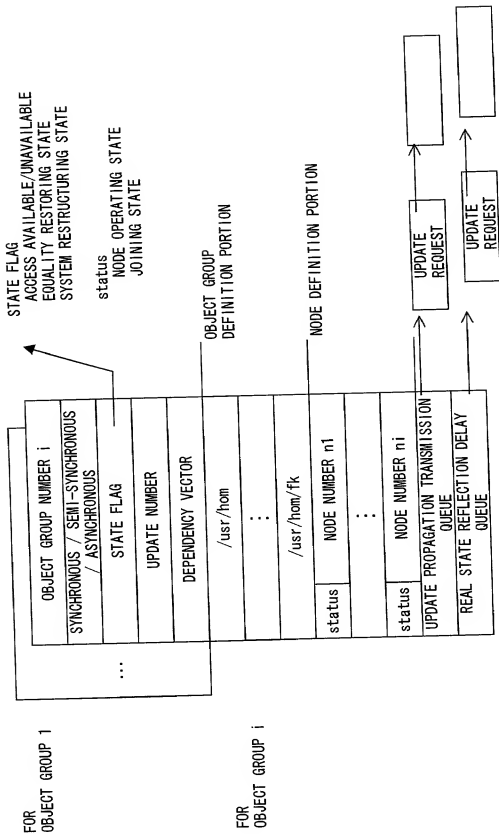


FIG. 6

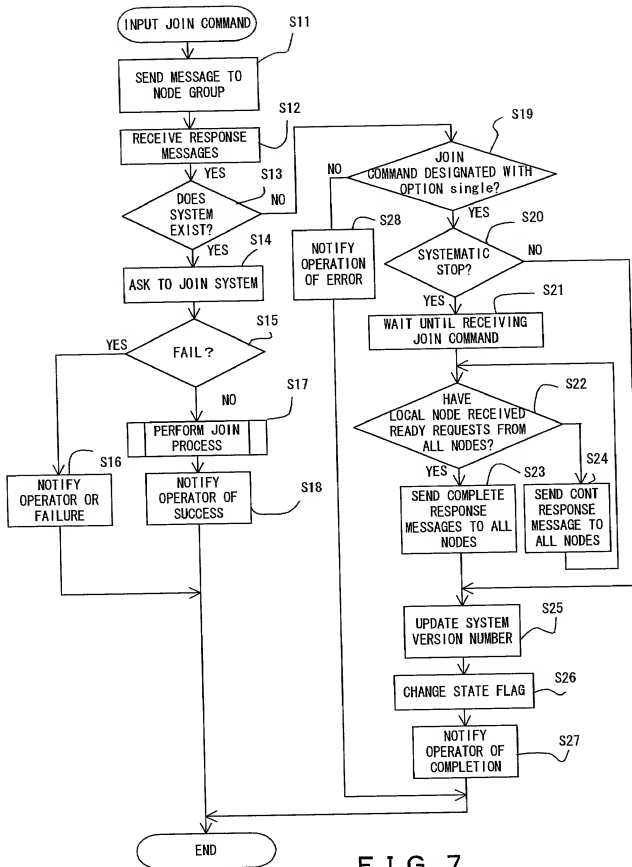


FIG. 7

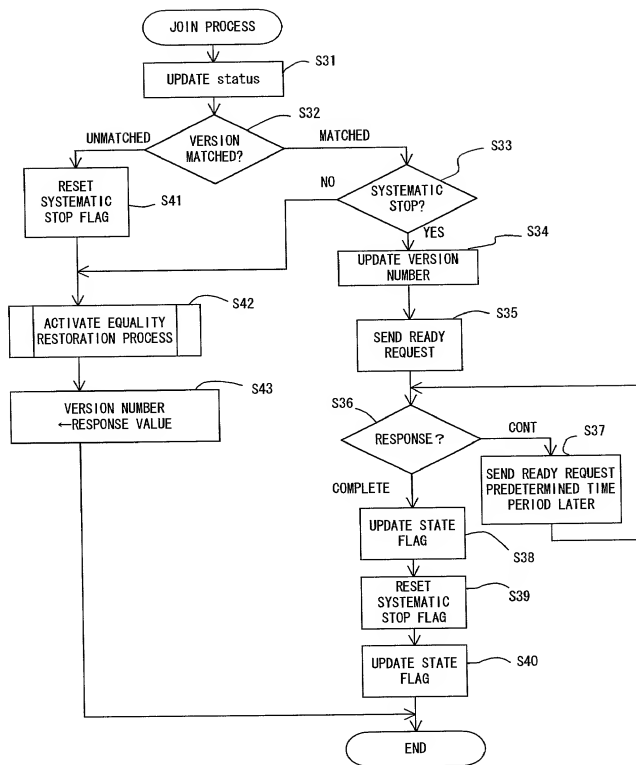
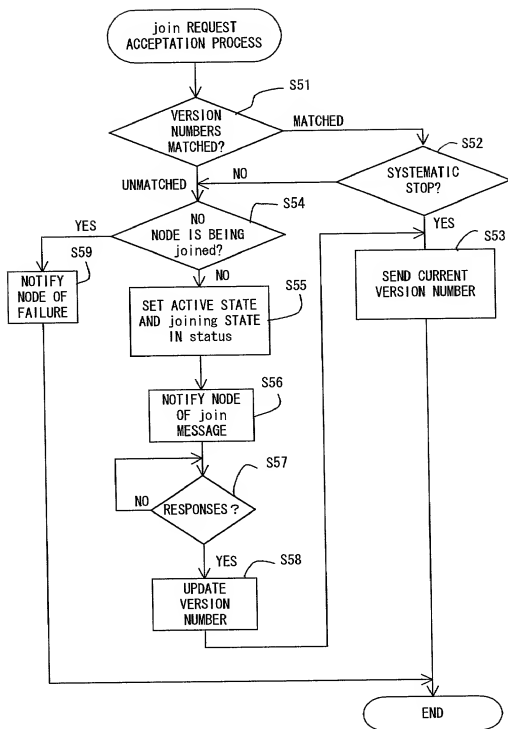


FIG. 8



F I G . 9

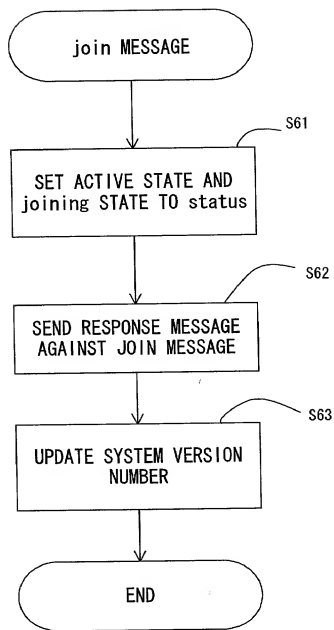


FIG. 10

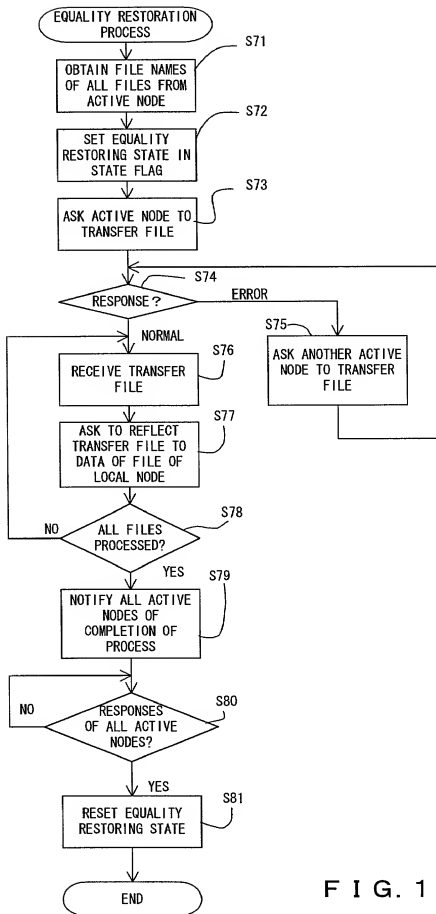


FIG. 11

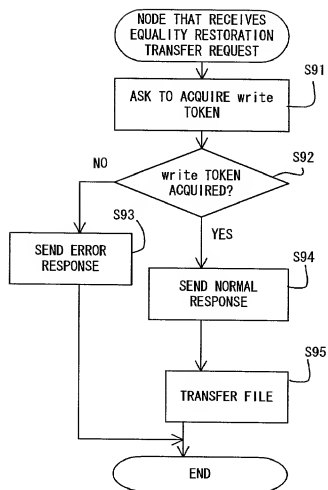


FIG. 12

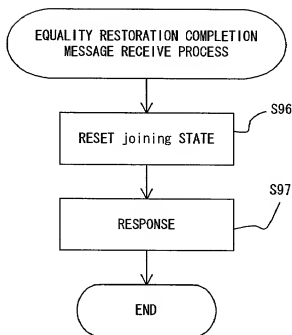


FIG. 13

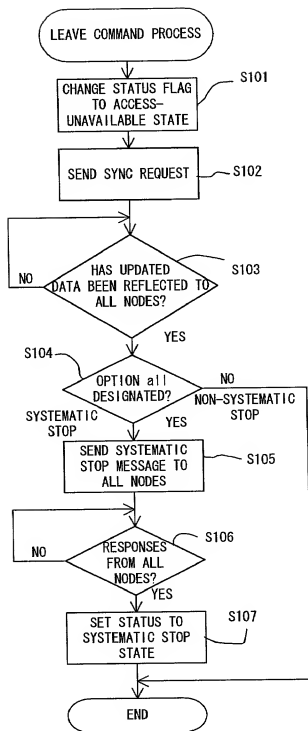


FIG. 14

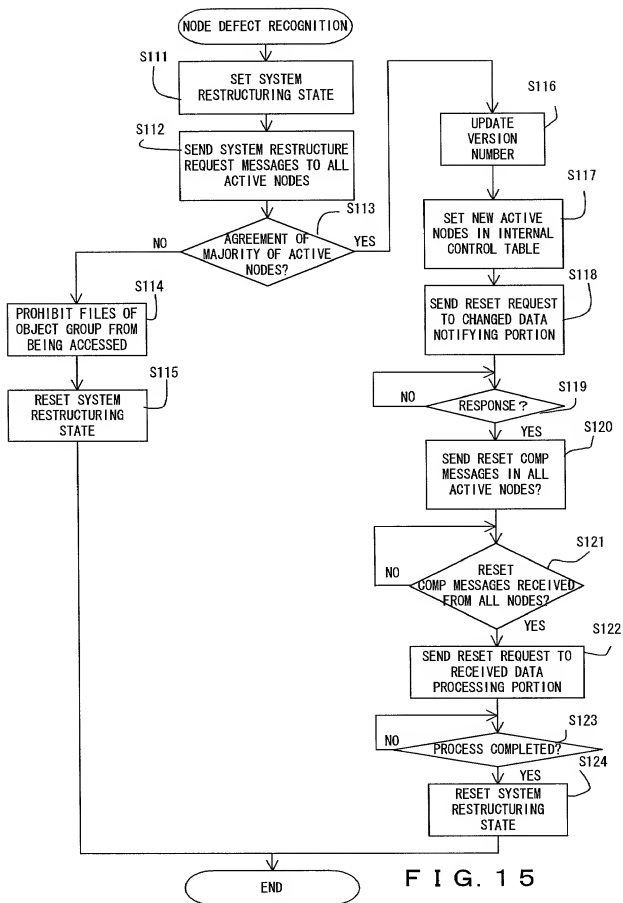


FIG. 15

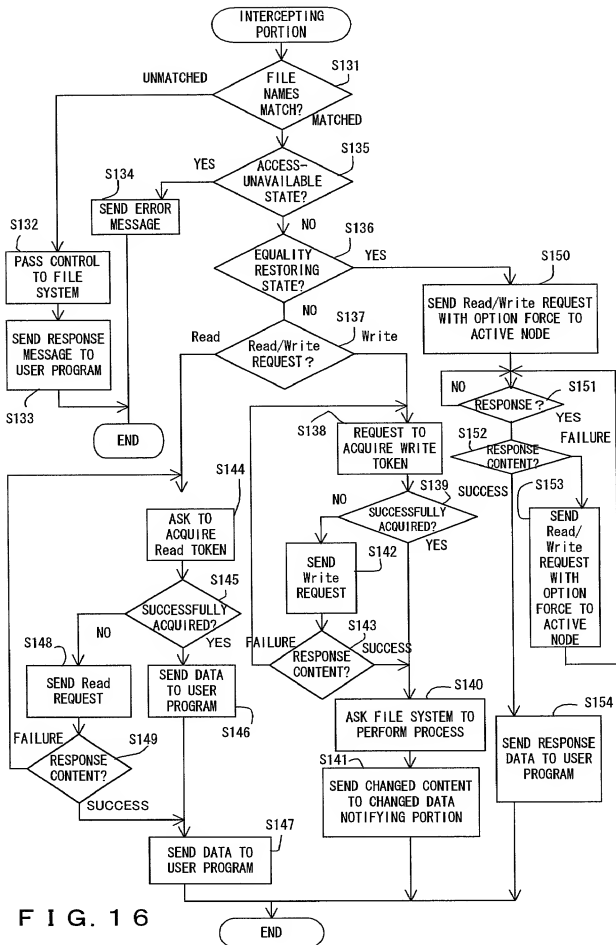


FIG. 16

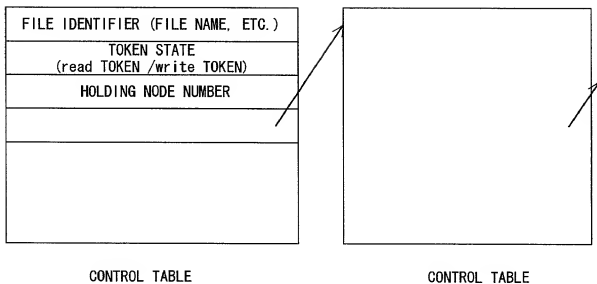


FIG. 17

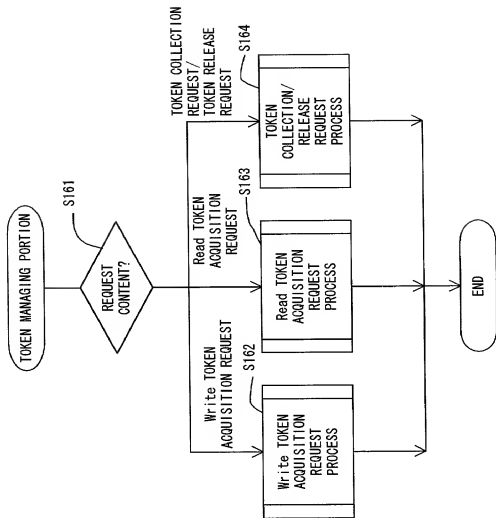


FIG. 18

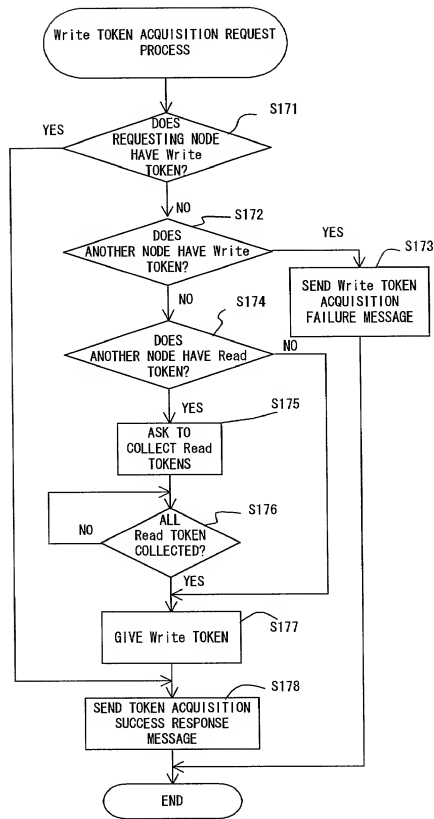


FIG. 19

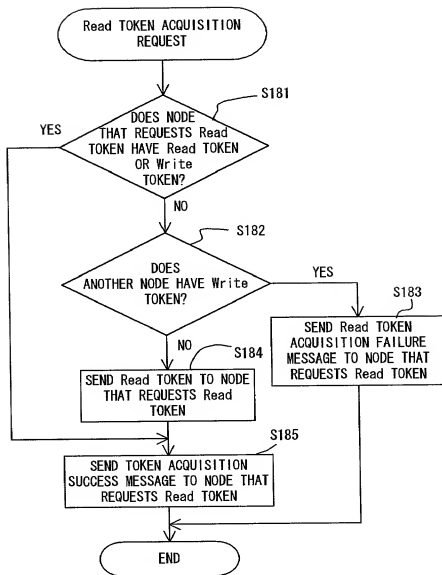
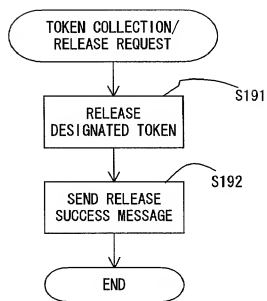


FIG. 20



F I G. 2 1

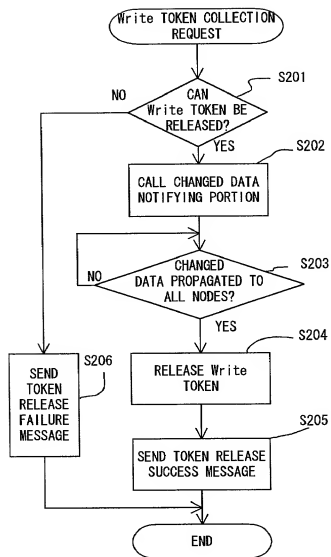


FIG. 22

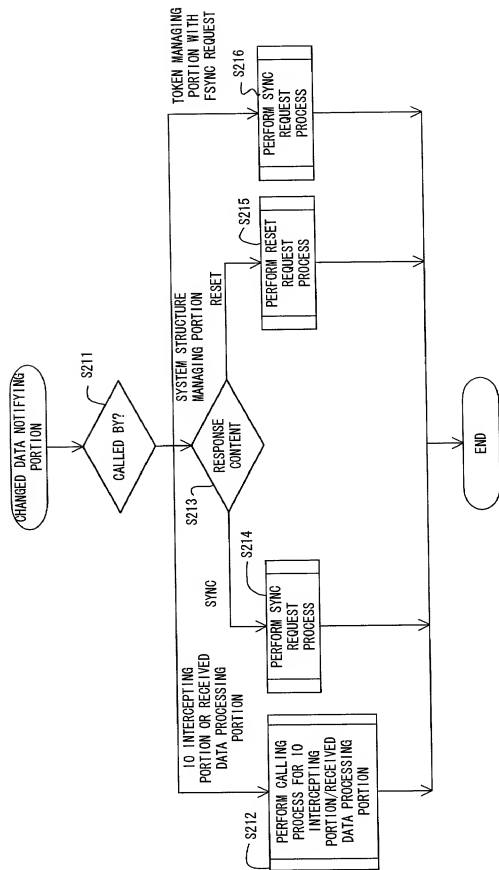


FIG. 23

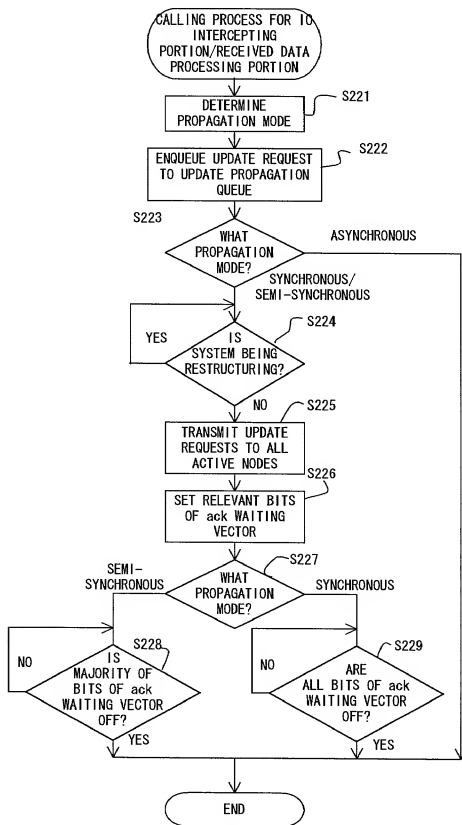


FIG. 24

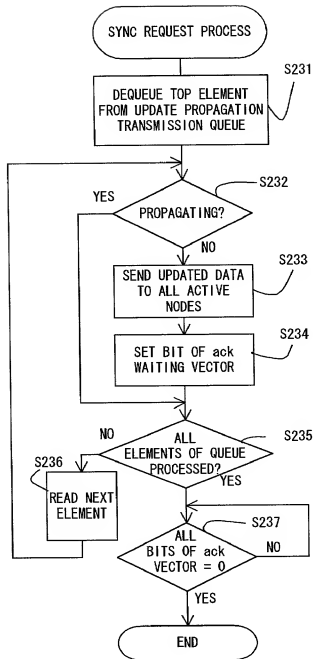
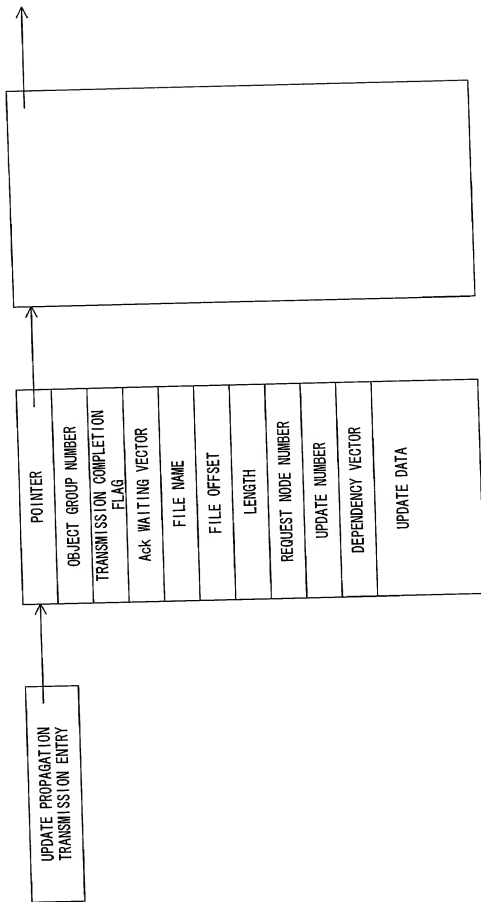


FIG. 25



F I G . 2 6

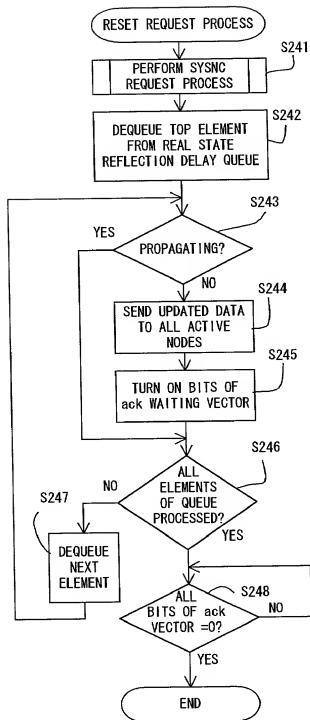


FIG. 27

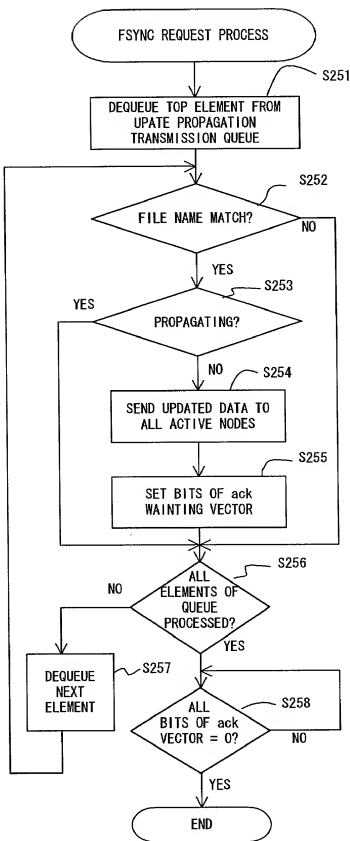
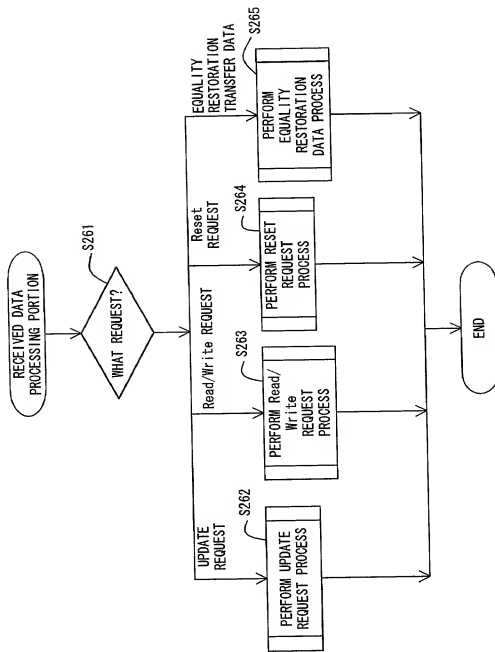


FIG. 28



F I G . 2 9

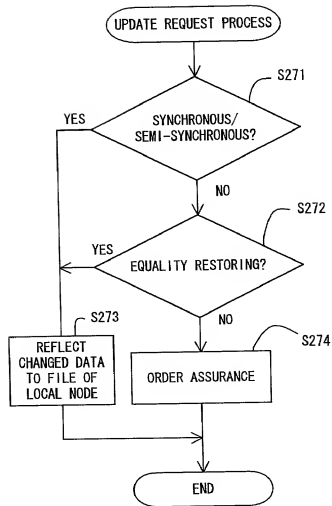
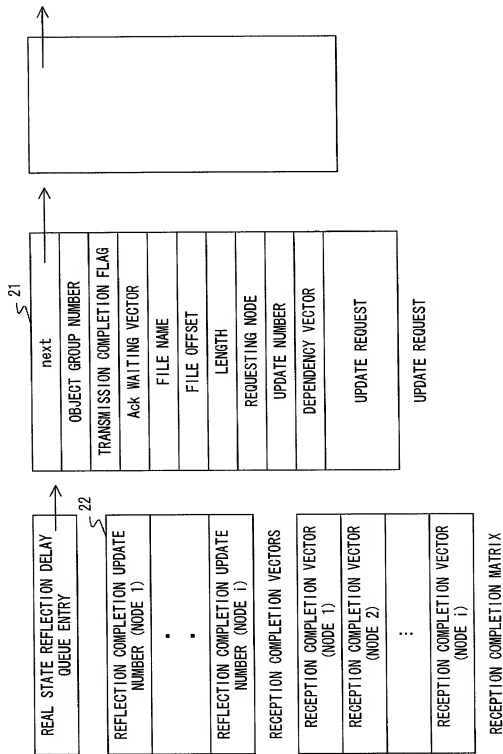


FIG. 30



F I G. 3 1

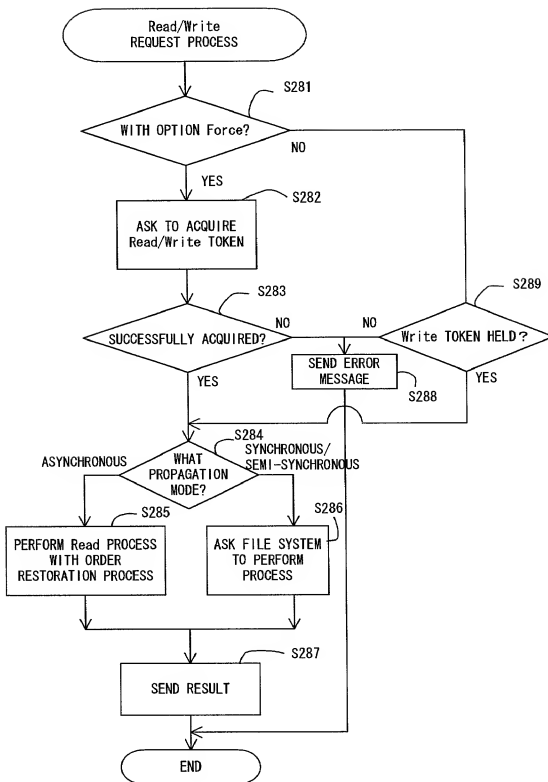


FIG. 32

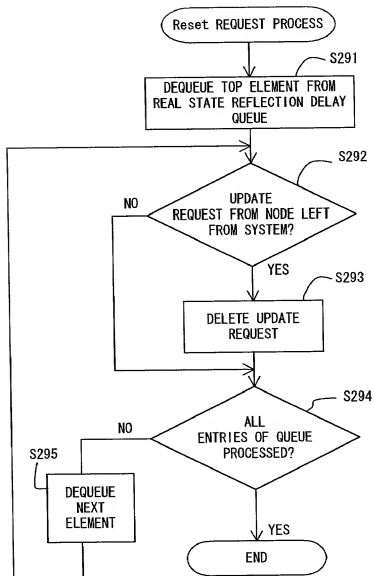


FIG. 33

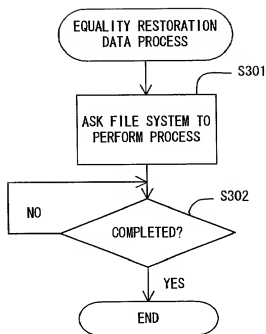


FIG. 34

Write REQUEST (NODE 2)

REQUEST NODE 2
UPDATE NUMBER 10
DEPENDENCY VECTOR
(10, 9, 6)



NODE 1
(20, 5, 5)



(20, 10, 6)

DEPENDENCY VECTOR

Read REQUEST (NODE 2)

DEPENDENCY VECTOR
(10, 9, 6)



NODE 1
(20, 5, 5)



(20, 9, 6)

DEPENDENCY VECTOR

FIG. 35

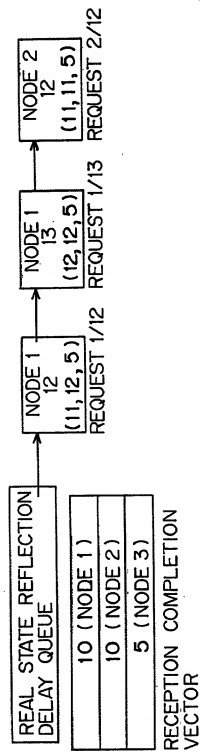


FIG. 36

NODE 1

write REQUEST
1/1 (0,0,0)

to Write fa

DEPENDENCY VECTOR
OR write REQUEST

NODE 2

ARRIVAL OF write

t1 REQUEST

t2 read fa

t3 write fb



(1, 0, 0)

(1, 0, 0)

2/1 (1,0,0)

(1, 1, 0)

DEPENDENCY VECTOR
OR write REQUEST

NODE 3

t4 read fb

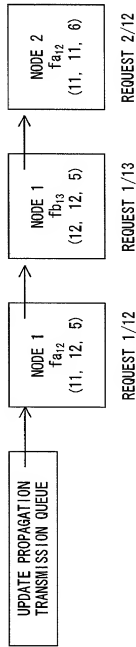
t5 write fc



(1, 1, 0)

3/1 (1, 1, 0)

FIG. 37



F I G. 3 8

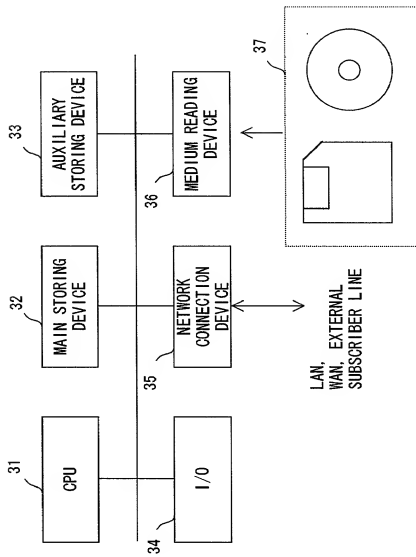


FIG. 39

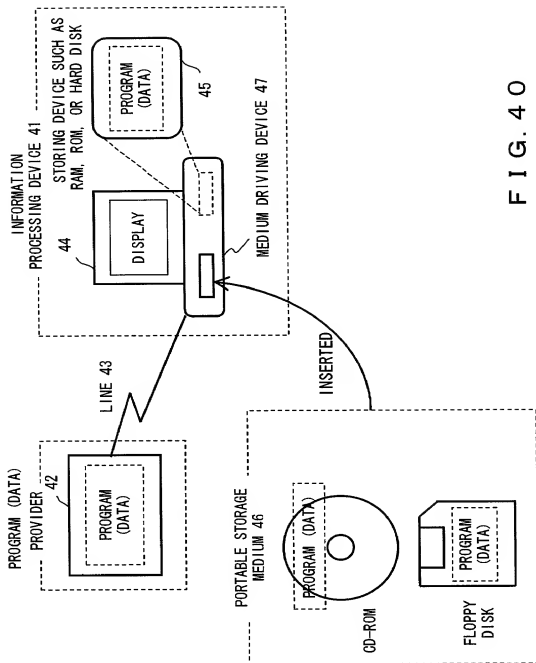


FIG. 40